

Mammals



Evolution and Characteristics

Mammals belong to the class Mammalia, which includes 4000 species
Most dominant land animals on earth.

Mammals are a diverse group living on land and in water. Some mammals can fly!



Characteristics

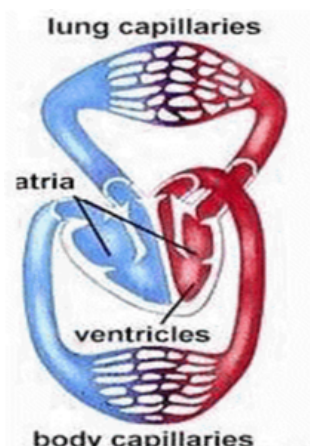
Mammals have

- mammary glands
- hair
- well-developed brains
- Mammals are endothermic



Characteristics

Mammalian heart has 2 separate loops powered by 4 chambers.



Mammals have bilateral symmetry.
(bodies are 2 equal halves down
midline)

Feeding Strategies

- Foragers- To search or look for food. Ex. Coyotes



- Grazers- To feed on grass or herbage. Ex. Cattle, sheep



Feeding Strategies Continued

- Scavenger- To feed on dead organic matter. Ex. Jackal



- Predator- To feed by capturing prey. Ex. Bears, wolves



Feeding Strategies Continued

- Filter feeder- To feed by filtering small organisms or pieces of food from water.

Ex. Blue whale



Characteristics

- Most species are viviparous, in which females carry their young until full development
- Female secrete milk from mammary glands to feed newborn young.



Characteristics

Two features that distinguish them from other vertebrates are that they all **have hair and they produce milk.**



Monotremes and Marsupials

Only 5 percent of all mammalian species are in the orders Monotremata and Marsupialia.



Monotremata

- **Oviparous or egg laying mammals**
- Ex. Duck-billed platypus and spiny anteaters called echidna.
- Not completely endothermic (their body temperature is lower and fluctuates more than other mammals)



Marsupials

- Marsupials give birth to tiny immature young that crawl to a pouch on the mothers belly immediately after they are born.



Marsupials

They attach themselves to milk secreting nipples nursing until they are mature enough to survive outside the pouch.



Placental Mammals

- Placental mammals carry unborn young in the uterus until young can survive in the wild.
- Oxygen and nutrients are transferred from mother's blood to baby's blood



Placental Characteristics

- The placenta is a membrane providing nutrients and waste & gas exchange between the mother and developing young
- Gestation period-is the time which mammals develop in mother's uterus

